IN THE CLAIMS

1. (Currently Amended) A method ~~of a blind speech user interference cancellation (SUIC) for a high speed downlink packet access (HSDPA)~~ comprising ~~the steps of~~:

receiving ~~(100)~~ an input signal ~~(22)~~ in a discrete-time domain by ~~a receiving and storing means (24) of~~ a blind ~~SUIC~~ speech user interference cancellation receiver ~~(20, 21)~~ for a high speed downlink packet access; and

separating ~~(104)~~ the input signal ~~(22)~~ to a desired high speed downlink packet access ~~HSDPA~~ signal ~~(34, 66)~~ with known spreading codes and to an interfering speech user signal ~~(48, 70)~~ with unknown spreading codes using a Walsh correlator ~~(32)~~ of the blind ~~SUIC~~ speech user interference cancellation receiver ~~(20, 21)~~ for further processing.

2. (Currently Amended) The method of claim 1, wherein the receiving and storing means ~~(24)~~ having a memory buffer for storing the input signal ~~(22)~~.

3. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:

generating ~~(106)~~ a speech user interference ~~(SUI)~~ signal ~~(52)~~ by a soft-decision on the interfering speech user signal ~~(48)~~ using ~~an SUI~~ a speech user interference estimation means ~~(46)~~ of the blind ~~SUIC~~ speech user interference cancellation receiver ~~(20)~~;

generating ~~(107)~~ an adjusted signal ~~(30)~~ by subtracting the ~~SUI~~ speech user interference signal ~~(52)~~ from the input signal ~~(22)~~ using a first adder ~~(28)~~; and

providing ~~(108)~~ the adjusted signal ~~(30)~~ to the Walsh correlator ~~(32)~~.

4. (Currently Amended) The method of claim 3, further comprising ~~the steps of~~:

separating ~~(110)~~ the adjusted signal ~~(30)~~ to a further desired high speed downlink packet access ~~HSDPA~~ signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using a Walsh correlator ~~(32)~~; and

generating ~~(112)~~ a soft-decision ~~HSDPA~~ high speed downlink packet access signal ~~(37)~~ from the further desired high speed downlink packet access ~~HSDPA~~ signal using a one-stage soft-decision parallel interference cancellation ~~(SD-PIC)~~ receiver ~~(36)~~.

5. (Currently Amended) The method of claim 4, wherein the soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(37)~~ is a blind ~~SUIC~~ speech user interference cancellation receiver output signal if a final multistage is reached based on predetermined criteria.

6. (Currently Amended) The method of claim 4, further comprising ~~the steps of~~:

generating ~~(115)~~ a hard-decision high speed downlink packet access ~~HSDPA~~ signal ~~(38)~~ based on the soft-decision

~~HSDPA~~ high speed downlink packet access signal ~~(37)~~ using a hard-decision means ~~(41).~~;

generating ~~(116)~~ a multiple access interference ~~(MAI)~~ signal ~~(42)~~ based on the hard-decision ~~HSDPA~~ high speed downlink packet access signal ~~(38)~~ using ~~an MAI~~ multiple access interference estimation means ~~(40)~~ of the blind ~~SUIC~~ speech user interference cancellation receiver ~~(20)~~;

generating ~~(118)~~ a further adjusted signal ~~(60)~~ by subtracting the ~~MAI~~ multiple access interference signal ~~(42)~~ from the input signal ~~(22)~~ using a second adder ~~(58)~~; and

providing the further adjusted signal ~~(60)~~ to a further Walsh correlator ~~(32a)~~.

7. (Currently Amended) The method of claim 1, further comprising ~~the step of~~:

generating ~~(120)~~ a soft-decision ~~HSDPA~~ high speed downlink packet access signal ~~(67)~~ from the desired ~~HSDPA~~ high speed downlink packet access signal ~~(66)~~ using a one-stage soft-decision parallel interference cancellation ~~(SD-PIC)~~ receiver ~~(36)~~.

8. (Currently Amended) The method of claim 7, wherein the soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(67)~~ is a blind ~~SUIC~~ speech user interference cancellation receiver output signal, if a final multistage is reached based on predetermined criteria.

9. (Currently Amended) The method of claim 7, further comprising ~~the steps of~~:

generating ~~(123)~~ the hard-decision high speed downlink packet access ~~HSDPA~~ signal ~~(68)~~ based on the soft-decision ~~HSDPA~~ high speed downlink packet access signal ~~(67)~~ using a hard-decision means ~~(41)~~;

generating ~~(124)~~ a multiple access interference ~~(MAI)~~ signal ~~(74)~~ based on the hard-decision ~~HSDPA~~ high speed downlink packet access signal ~~(68)~~ using ~~an MAI~~ multiple access interference estimation means ~~(40)~~ of the blind ~~SUIC~~ speech user interference cancellation receiver ~~(20)~~;

generating ~~(126)~~ an adjusted signal ~~(64)~~ by subtracting the ~~MAI~~ multiple access interference signal ~~(42)~~ from the input signal ~~(22)~~ using a first adder ~~(58)~~; and

providing ~~(127)~~ the adjusted signal ~~(64)~~ to the Walsh correlator ~~(32)~~.

10. (Currently Amended) The method of claim 9, further comprising ~~the steps of~~:

separating ~~(128)~~ the adjusted signal ~~(64)~~ to a further desired ~~HSDPA~~ high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using a Walsh correlator ~~(32)~~;

generating ~~(132)~~ a speech user interference ~~(SUI)~~ signal ~~(72)~~ by a soft-decision on the further interfering speech user signal using ~~an SUI~~ a speech user interference estimation means ~~(46)~~ of the blind ~~SUIC~~ speech user interference cancellation receiver ~~(20)~~;

generating ~~(108)~~ a further adjusted signal ~~(76)~~ by subtracting the ~~SUI~~ speech user interference signal ~~(52)~~ from the input signal ~~(22)~~ using a second adder ~~(28)~~; and

providing the further adjusted signal ~~(76)~~ to a further Walsh correlator ~~(32a)~~.

11. (Currently Amended) A blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(20, 21)~~ for a high speed downlink packet access, ~~(HSDPA)~~ comprising:

a Walsh correlator ~~(32)~~, responsive to an input signal ~~(22)~~ in a discrete-time domain, ~~for providing~~ configured to provide two signals for a further processing by separating the input signal ~~(22)~~ to a desired high speed downlink packet access ~~HSDPA~~ signal ~~(34, 66)~~ with known spreading codes and to an interfering speech user ~~(ISU)~~ signal ~~(48, 70)~~ with unknown spreading codes. ~~; and~~

~~receiving and storing means (24), responsive to the input signal (22), for storing the input signal (22) and for providing the input signal (22) to the Walsh correlator (32, 32a).~~

12. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(20)~~ of claim 11, further comprising:

~~an SUI~~ speech user interference estimation means ~~(46)~~, responsive to the interfering speech user signal ~~(48)~~, ~~for providing~~configured to provide a speech user interference ~~(SUI)~~ signal ~~(52)~~ by a soft-decision on the interfering speech user signal ~~(48)~~; and

a first adder ~~(28)~~, responsive to the SUI speech user interference signal ~~(52)~~ and to the input signal ~~(22)~~, ~~for providing~~ configured to provide an adjusted signal ~~(30)~~ to the Walsh correlator ~~(32)~~ by subtracting the ~~SUI~~ speech user interference signal ~~(52)~~ from the input signal ~~(22)~~, wherein the Walsh correlator ~~provides~~ is configured to provide a further desired high speed downlink packet access ~~HSDPA~~ signal with the known spreading codes and a further interfering speech user ~~(ISU)~~ signal with the unknown spreading codes.

13. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(20)~~ of claim 12, further comprising:

a one-stage soft-decision parallel interference cancellation ~~(SD-PIC)~~ receiver ~~(36)~~, responsive to the further desired high speed downlink packet access ~~HSDPA~~ signal, ~~for providing~~ configured to provide a soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(37)~~.

14. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(20)~~ of claim 13, wherein the soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(37) becomes~~ is a blind ~~SUIC~~ speech user interference cancellation receiver output signal if a predetermined criterion is met. ~~based on predetermined criteria.~~

15. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(20)~~ of claim 13, further comprising:

a hard-decision means ~~(41)~~, responsive to the soft-decision ~~HSDPA~~ high speed downlink packet access signal ~~(37)~~, ~~for providing~~ configured to provide a hard-decision ~~HSDPA~~ high speed downlink packet access signal ~~(38)~~;

~~an MAI~~ multiple access interference estimation means ~~(40)~~, responsive to the hard-decision ~~HSDPA~~ high speed downlink packet access signal ~~(38)~~, ~~for providing~~ configured to provide a multiple access interference ~~(MAI)~~ signal ~~(42)~~; and

a second adder, responsive to the ~~MAI~~ multiple access interference signal ~~(42)~~ and to the input signal ~~(22)~~, ~~for providing~~ configured to provide a further adjusted signal, ~~(62)~~ by subtracting the ~~MAI~~ multiple access interference signal ~~(42)~~ from the input signal ~~(22), wherein the further adjusted signal (64) is provided~~ to a further Walsh correlator ~~(32a)~~.

16. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(21)~~ of claim 11, further comprising:

a one-stage soft-decision parallel interference cancellation ~~(HD-PIC)~~ receiver ~~(36)~~, responsive to the desired high speed downlink packet access ~~HSDPA~~ signal, for providing a soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(67)~~.

17. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(21)~~ of claim 16, wherein the soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(67) becomes~~ is a blind ~~SUIC~~ speech user

interference cancellation receiver output signal ~~based on~~ if a predetermined ~~criteria~~ criterion is met.

18. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(21)~~ of claim 17, further comprising:

a hard-decision means ~~(41)~~, responsive to the soft-decision high speed downlink packet access ~~HSDPA~~ signal ~~(67)~~, ~~for providing~~ configured to provide a hard-decision high speed downlink packet access ~~HSDPA~~ signal ~~(68)~~;

~~an MAI~~ multiple access interference estimation means ~~(40)~~, responsive to the hard-decision high speed downlink packet access ~~HSDPA~~ signal ~~(68)~~, ~~for providing~~ configured to provide a multiple access interference ~~(MAI)~~ multiple access interference signal ~~(74)~~; and

a first adder ~~(28)~~, responsive to the ~~MAI~~ multiple access interference signal ~~(74)~~ and to the input signal ~~(22)~~, ~~for providing~~ configured to provide a further adjusted signal ~~(64)~~ to the Walsh correlator ~~(32)~~ by subtracting the ~~MAI~~ multiple access interference signal ~~(74)~~ from the input signal ~~(22)~~, wherein the Walsh correlator ~~(32)~~ ~~provides~~ is configured to provide a further desired high speed downlink packet access ~~HSDPA~~ signal with known spreading codes and a further interfering speech user signal with unknown spreading codes.

19. (Currently Amended) The blind speech user interference cancellation ~~(SUIC)~~ receiver ~~(21)~~ of claim 18, further comprising:

~~an SUI~~ speech user interference estimation means ~~(46)~~, responsive to the further interfering speech user signal, ~~for providing~~ configured to provide a speech user interference ~~(SUI)~~ signal ~~(72)~~ by a soft-decision on the further interfering speech user signal; and

a second adder ~~(28)~~, responsive to the ~~SUI~~ speech user interference signal ~~(72)~~ and to the input signal ~~(22)~~, ~~for providing~~ configured to provide a further adjusted signal ~~(76)~~ to a further Walsh correlator ~~(32a)~~ by subtracting the ~~SUI~~ speech user interference signal ~~(72)~~ from the input signal ~~(22)~~.

20. (New) The blind speech user interference cancellation receiver of claim 11, further comprising:

receiving and storing means, responsive to the input signal, configured to store the input signal and for providing the input signal to the Walsh correlator.